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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,251	09/16/2005	Stephen Edward Rees	030307-0252	8813

22428 7590 09/05/2007

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EXAMINER	
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ART UNIT	PAPER NUMBER
2863	

MAIL DATE	DELIVERY MODE
09/05/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

TH

Office Action Summary	Application No.	Applicant(s)	
	10/522,251	REES ET AL.	
	Examiner	Art Unit	
	Sujoy K. Kundu	2863	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 July 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *09/16/2005; 01/25/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Claims 1-11 withdrawn from further consideration pursuant to 37 CFR 1.142(b) there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on July 6, 2007.

Specification

The abstract of the disclosure does not commence on a separate sheet in accordance with 37 CFR 1.52(b)(4). A new abstract of the disclosure is required and must be presented on a separate sheet, apart from any other text.

Claim Objections

Claim 2 is objected to because of the following informalities: The word "values" in the preamble should be removed.

Claim 7 has a ")" which needs to be removed.

Additionally, the word "analyzing" is misspelled throughout.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1- are rejected under 35 U.S.C. 102(a) as being anticipated by Biegeleisen ("Models of Venous Admixture").

With regards to Claim 1, Biegeleisen teaches a method of converting venous blood values to arterial blood values, said method comprising the steps of:

- a) providing values of arterial oxygenation (Figure 3, Page 159, Column 2, Paragraphs 3-5),
- b) measuring and estimating values of acid/base status and oxygenation status in blood sample, the sample being obtained from veneous blood (Page 159, Column 2, Paragraphs 2-5),
- c) converting the venous blood values by applying mathematical model for deriving blood acid/base status and oxygenation status into estimated arterial blood values (Page 159, Column 2, Paragraphs 2-5).

With regards to Claim 2, Biegeleisen teaches a method according to claim 1, said method measuring and analyzing comprising the further steps of:

- d) providing an anaerobic venous blood sample (Figure 3, Page 161, Column 1 – Column 2),
- e) analyzing said anaerobic venous blood sample for evaluating the acid/base status of the venous blood sample (Figure 3, Page 161, Column 1 – Column 2), and
- f) analyzing said anaerobic venous blood sample for evaluating the oxygenation status of the venous blood sample (Figure 3, Page 161, Column 1 – Column 2).

With regards to Claim 3, Biegeleisen teaches a method according to claim 1, said method comprising the further step of:

- g) providing the arterial oxygenation such as oxygen saturation, pressure or concentration, said further step being performed at any time in relation to any of the steps a) – c) (Figure 3, Page 161, Column 1 – Column 2).

With regards to Claim 4, Biegeleisen teaches a method, said method comprising even further step of:

- h) simulating the blood acid/base status and oxygenation status of an arterial blood sample by use of mathematical modeling (Figure 3, Page 161, Column 1 – Column 2, Equation 3 and 4)

With regards to Claims 5, 6, 8, Biegeleisen teaches a method, said method still even comprising the further steps of:

- i) mathematical modeling comprising simulated addition of oxygen, 02, to and removal of carbon dioxide, CO2, from the venous blood sample values in a ratio determined by the respiratory quotient (Figure 3, Page 161, Column 1 – Column 2, Equation 3A),

- i) said mathematical modeling being performed until the simulated oxygen level is equal to the arterial oxygenation level measured or estimated (Figure 3, Page 161, Column 1 – Column 2, Equation 3A), and

- k) calculating the acid/base status and the oxygenation of the arterial blood by applying the result of said modeling (Figure 3, Page 161, Column 1 – Column 2, Equation 3A).

With regards to Claim 7, Biegeleisen teaches a method further comprising a further step of:

- l) providing the arterial carbon dioxide level such as carbon dioxide pressure, total concentration or bicarbonate concentration, said further step being performed at any time in relation to any of the steps a) – c) (Figure 3, Page 161, Column 1 – Column 2).

With regards to Claim 9, 10, Biegeleisen teaches a method further comprising the steps of:

- n) mathematical modeling comprising simulated addition of 02 to and removing CO2 from the venous blood sample values in a ratio determined by the respiratory quotient (Figure 3, Page 161, Column 1 – Column 2, Equation 3A),
- o) said modeling being performed until the simulated carbon dioxide level is equal to the arterial carbon dioxide level measured or estimated (Figure 3, Page 161, Column 1 – Column 2, Equation 3A), and
- pl) calculating the acid/base status and the oxygenation of the arterial blood by applying the result of said modeling (Figure 3, Page 161, Column 1 – Column 2, Equation 3A).

With regards to Claim 11, Biegeleisen teaches a method further comprising:

where the measuring or estimating of the arterial oxygen saturation is done by pulse oximetry (Page 162, Column 1, Paragraph 1).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sujoy K. Kundu whose telephone number is 571-272-8586. The examiner can normally be reached on M-F 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on 571-272-2269. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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August 29, 2007
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